

Amendments to and Listing of the Claims:

Please amend claims 1 and 9 as indicated below, wherein strikethrough indicates deletion and underlining indicates addition. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently amended) A method of forming a PFET device comprising the steps:
 - providing a substrate having at least one gate stack having first and second sidewalls;
 - depositing a silicon nitride layer by means of a dual-frequency plasma enhanced CVD process, the CVD process comprising a temperature ~~in the range 400° C to 550° C of 480° C~~, a low frequency power ~~in the range 0 W to 50 W of 40 W~~, and a high frequency power ~~in the range 90 W to 110 W of 100 W wherein the silicon nitride layer has a vertical to horizontal coverage ratio between 70 to 90 percent~~;
 - forming a spacer on said at least one gate stack from said silicon nitride layer ~~first and second separate, unconnected sidewall spacers, the first sidewall spacer extending along at least a portion of the first sidewall and the second spacer extending along at least a portion of the second sidewall~~; and
 - forming a PFET device comprising said at least one gate stack having said spacers spacer.
2. (Original) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a pressure in the range 2 Torr to 5 Torr.
3. (Cancelled) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a low frequency power in the range 0 W to 50 W.
4. (Cancelled) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a high frequency power in the range 90 W to 110 W.

5. (Original) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises precursor gases of silane, ammonia and nitrogen at flow rates in the ratio 240:3200:4000 sccm.

6. (Cancelled) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a temperature of 480°C.

7. (Original) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a pressure of 2.5 Torr.

8. (Cancelled) The method of claim 1 wherein said dual-frequency plasma enhanced CVD process further comprises a high frequency power of about 100 W and a low frequency power of about 40 W.

9. (Currently amended) A method of forming a PFET device comprising the steps:
providing a substrate having at least one gate stack having first and second sidewalls;

depositing a silicon nitride layer by means of a dual-frequency plasma enhanced CVD process, the CVD process comprising a temperature ~~in the range 400° C to 550° C of 480° C~~, a pressure in the range 2 Torr to 5 Torr, a low frequency power ~~in the range 0 W to 50 W of 40 W~~, a high frequency power ~~in the range 90 W to 110 W of 100 W~~, and precursor gases of silane, ammonia and nitrogen at flow rates in the ratio about 240:3200:4000 sccm, wherein the silicon nitride layer has a vertical to horizontal coverage ratio between 70 to 90 percent;

~~forming a spacer on said at least one gate stack from said silicon nitride layer first and second separate, unconnected sidewall spacers, the first sidewall spacer extending along at least a portion of the first sidewall and the second spacer extending along at least a portion of the second sidewall; and~~

forming a PFET device comprising said at least one gate stack having said spacers.

10. (Cancelled) The method of claim 9 wherein the CVD process comprises a temperature about 480° C., a pressure of about 2.5 Torr, a low frequency power of about 40 W, a high frequency power of about 100 W, and precursor gases of silane, ammonia and nitrogen at flow rates in the ratio about 240:3200:4000 sccm.
11. (Withdrawn) A silicon nitride film for forming a semiconductor device having a spacer, said spacer comprising a silicon nitride film formed by a dual-frequency PECVD process comprising a temperature in the range 400° C. to 550° C., wherein said silicon nitride film has a vertical to horizontal coverage ratio between 70% to 90%.
12. (Withdrawn) The silicon nitride film of claim 11 further comprising RBS Si, N, H ratios of 0.4:0.48:0.12.
13. (Withdrawn) The silicon nitride film of claim 11 further comprising a FTIR ratio of Si--H/N--H of about 0.1.
14. (Withdrawn) The silicon nitride film of claim 11 further comprising percent bonded hydrogen less than 10% by volume.
15. (Withdrawn) The silicon nitride film of claim 11 further comprising a refractive index of 1.95.+-.0.05.
16. (Withdrawn) The silicon nitride film of claim 11 wherein said silicon nitride film has a deposited stress in the range from about +8 Gigadynes/cm² tensile stress to -7 Gigadynes/cm² compressive stress.
17. (Withdrawn) The silicon nitride film of claim 11 wherein said silicon nitride film has a deposited stress of about 3 Gigadynes/cm² compressive stress.
18. (Withdrawn) A semiconductor device having a spacer, wherein said spacer comprises a

silicon nitride film formed by a dual-frequency PECVD process comprising a temperature in the range 400° C. to 550° C., wherein said silicon nitride film has a vertical to horizontal coverage ratio between 70% to 90%.

19. (Withdrawn) The semiconductor device of claim 18 wherein said semiconductor device is a PFET device.

20. (Withdrawn) The semiconductor device of claim 19 where in said spacer comprises a dual spacer.